

MORPHOLOGY OF PLANT'S
ROOT SYSTEM ALONG
RIVERBANK AS A KEY FOR
ECOLOGICAL BALANCER

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Historically, cities were created along the rivers but overtime many of those rivers in the cities have been neglected. The rivers become merely as drains for the urban storm water management. However, rivers in the cities could be ecological hubs where the river-bank and riparian wetland act as habitat for local flora and fauna. In addition, the riparian wetlands will also act as sponges to absorb and mitigate floodwater and water surface runoff. Rivers are actually an ecological balancer for the cities but one of the issues with river riparian is the river embankment erosion. River embankment erosions cause sedimentation thus making the river shallow and destroy the ecological functions of the rivers. Nevertheless, the most significant ele-

ment that can to hold the river embankment is a plant. Plant rooting system holds soil tightly together but at the same time giving a space to liquid and gasses for environment. The question is; what type of plants is suitable as erosion controller? One of the factors to be considered is the plants root morphological system that is categorized by its distribution, widespread, depth and size. These different types of plants rooting system morphology have significantly proven to be able to control soil-water-embankment erosion. Essentially, it will become a starting point in creating a database for ecosystem-friendly plant for riverside settlement and as a flood controller in the tropics.

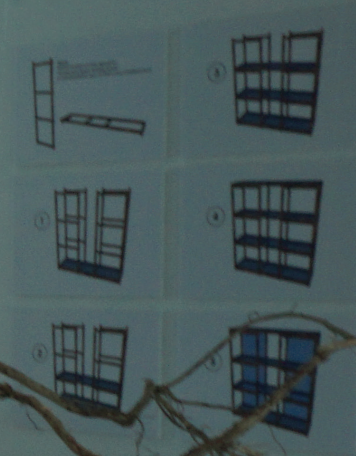


Root installation - 2016



ARCHITECTONIC SPACER FURNITURE - Rubix Series
by Rahimah Ibrahim & Rafeah Mustafa Kamal

The Architectonic Spacer Furniture is an example using the same Architectonic Spacer Building System (Ibrahim & Jagannathan, 2011) to produce non-building forms. The Architectonic Spacer Building System was initially developed from an ethnography study intended to help the industrialised timber construction for Malaysia. It is a systemic integration of prefabrication and assembly knowledge during the product design process to reduce material wastage while providing form flexibility during its assembly. In this furniture prototype, varied predetermined shaped components would support the flexible components. When making pre-assembled and modular furniture components, the artifact kitapaku is essential to hybrid the integrated product and design process with non-timber materials.



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